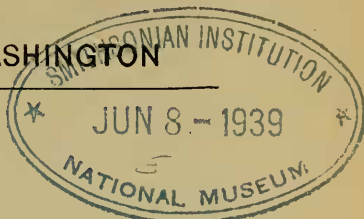


PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTON



RARE FISHES OFF THE ATLANTIC COAST
INCLUDING A NEW GRAMMICOLEPID.

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The junior author has been in close touch with fishermen who land their catches at the Boston market, and who, realizing his interest, frequently bring rarities to him. Three such are as follows.

Seymnohinus lichia (Bonnaterre).

An individual of this shark taken 178 miles east-by-south of Boston Light Vessel on the northern edge of Georges Bank in 50 fathoms of water, August 19, 1937, by the Steamer Illinois' mate (J. J. Moran) seems to be the first American record for this species of eastern Atlantic and Mediterranean waters. It may perhaps be taken as further evidence of the tendency we have mentioned elsewhere for fishes with Mediterranean affinities when they occur in American waters to do so on the continental slope. This specimen measured 5 ft. 1 in. (approx. 1550 mm.) in total length and weighed 23½ lbs. fresh with the viscera removed.

Xenolepidichthys americanus, new species.

Description of type.—No. 14107, American Museum of Natural History, from some 220 miles east-south-east of Boston Lightship at the outer edge of Georges Bank, July 17, 1938, collected by Captail Gil Lafford of the schooner "America."

Length to base of caudal, 100 mm. Depth in this length, 1.3½; head, 3.5; longest anal spine, 1.3½; caudal, 2.2. Eye in head, 2.4; snout, 3; interorbital, 3.5; greatest width, 2.5; depth of peduncle, 3.5; pectoral, 1.7; ventral, 1.8; first dorsal spine, 1.2; longest dorsal ray, 2.6; longest anal ray, 2.4. Maxillary in eye, 2; second anal spine, 3.5.

Dorsal rays, V, 33; anal II—34. Scales crossing lateral line, about 110. Gill-rakers, about 20, short and close spaced.

Body deep and strongly compressed, irregularly diamond shaped, slanting upward to origin of dorsal and downward to origin of anal below

¹ Amer. Museum Natural History.

² U. S. Bureau of Fisheries.

it, then backward to the upper and lower bases of caudal peduncle. The lower angle of the body is about twice as far below the line through snout, eye and peduncle, as the upper angle is above it. Eye large, mouth small and oblique, with a single row of small, slender, curved, conical backwardly directed teeth in each jaw. Top of head broadened, with irregular spinigerous ridges on either side, depressed between them with a deep oval pit in its center above the front of the eye. A ridge above and behind the eye to a strong compressed spine at the upper angle of the opercle. Sides of the body with a number of horizontally flattened spines, some simple, others larger and compound, the largest on either side of the peduncle below the lateral line. These spines seem irregularly placed but mostly correspond on the two sides of the body. Along the upper and lower posterior ridges of the body, there are crests of small sharp irregular spines, at either side of the bases of dorsal and anal rays, also continuous for the considerable space between the second anal spine and first ray.

The ventral fin is placed low, a short distance before the anal, which it does not reach. Its spine is moderately strong, curved, serrate on the outer margin. The dorsal spines are weak and the rays all simple; the fin continuous but more or less divided, how deeply one can not say as the first two rays (or last two spines) are broken. The first dorsal and anal spines are similar, filamentous with a row of spinules both before and behind toward their bases; the anal, much the longer, extends to opposite the base of the

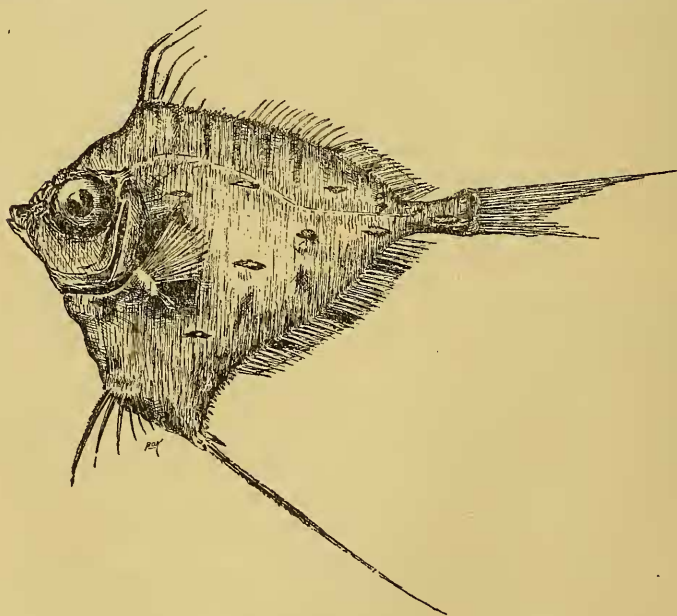


FIG. 1. *Xenolepidichthys americanus*, type.

caudal fin. The second anal spine is small, stiff, close behind the first, separated from the first ray by a distance equal to the diameter of the eye. The caudal is long, pointed, with some of the upper rays filamentous, the lower also lengthened to form a slight fork.

The scales are parchment-like, linear, vertical, much elongate, each marked with several more or less vertical and papillose ridges. They become shorter on the nape, relatively short and somewhat spinigerous on the peduncle, and are arranged cross-wise on the branchiostegal region. They are present on the head, except for its top, the snout and lower jaw which are scaleless. The lateral line is strongly arched in front and straight from about the middle of the body backward.

Color in alcohol pale with a series of dark marks on the mid-line of the back, and about 10 narrow dark bars extending downward from these to the level of the top of the eye. Further down on the sides there is a double lengthwise series of three or more very faint dark blotches. The flattened spines scattered over the body are blackish. Base of anal with a series of dusky blotches, and posterior part of caudal dusky.

This singular fish is so like *Xenolepidichthys dalgleishi* Gilchrist from South Africa that it seems best to describe it in that genus rather than to make it the type of another monotypic grammicolepid genus. Obvious differences consist of horizontally flattened spines scattered over the body, much longer anterior filamentous dorsal and anal spines, and a long pointed versus short approximately truncate caudal. The first two characters are such as are sometimes subject to intraspecific variation of one sort or another, and there is a possibility of a short caudal being derived from a long by breakage. One may not safely judge how distantly or how closely related this fish is to the South African form without comparing specimens of about equal size, but there can be little doubt that it is a different, well-marked, undescribed species.

The single specimen had been swimming about a swordfisherman for two days, was caught in a bucket, and presented to Mr. Firth at Boston. The name *americanus* seems appropriate as the schooner's name was "America," and nothing like it has been recorded previously from American waters.

Chaetodon aya Jordan.

A specimen of this rare butterfly-fish was taken in an otter-trawl net 8 miles southwest of Diamond Shoal Light Vessel, North Carolina, February 6, 1937; and was sent to Mr. Firth by fishermen who know these waters well, as something very new and strange to them.

Apparently the species is known previously only from small specimens taken in the Gulf of Mexico, the only definite record for it with which we are familiar being that of the type, 1½ inches long, from the stomach of a red snapper caught in rather deep water near Pensacola. The fauna from corresponding depths off the Carolinas may be more uniform with the bank fauna of the Gulf than would seem likely offhand.

Our specimen is a grown fish measuring 85 mm. in length to base of caudal. Depth in this length, 1.7, head, 2.9. Eye in head, 3.4; snout, 2.6;

interorbital, 3.6; depth of peduncle, 3.2; pectoral, $1.4\frac{1}{2}$; ventral, 1.3; longest dorsal spine (3d), 1.0; longest anal spine (2d), 1.7; caudal, 1.7.

Dorsal rays, XIII, 19; anal, III, 15. Scales (following the course of the lateral line which numbers 27 or 28), about 37.

The snout is produced, narrow, with small mouth at its tip, forehead and chin concave, maxillary reaching about half way to eye.

Color in preservative pale, a black band from the first two dorsal spines to the eye, continued narrower and fainter from below the eye to behind the maxillary; a very broad black band from the 5th to 10th dorsal spines to the base of the anal; a narrow dusky stripe in the middle of the interorbital from over the center of the eye to the snout. Color notes when fresh give a dark spot on the upper corner of the opercle, faint dark blotch near the posterior margin of the spinous dorsal, back between the black bands, vertical fins and ventrals yellow.